

containing aqueous medium in which the acid is present in the internal and external liposome phases; or

- (2) an aqueous medium containing a base which is substantially impermeable through the vesicle to give an basic liposome-containing aqueous medium in which the base is present in the internal and external liposome phases;

(b) adding:

- (1) to the thus-obtained acid liposome-containing aqueous medium a permanently charged, chargeable, or pH titratable chemical species which is a cationic chemical species, or
- (2) to the thus-obtained acid liposome-containing aqueous medium a permanently charged, chargeable, or pH titratable chemical species which is an anionic chemical species; and

(c) adding to the external liposome phase:

- (1) a base to thereby induce the cationic chemical species to pass into the liposomes' internal acidic aqueous phase, or
- (2) an acid to thereby induce the anionic chemical species to pass into the liposomes' internal basic aqueous phase;

wherein said cationic chemical species or said anionic chemical species is accumulated and entrapped within said liposome to produce a stable liposome vesicle-entrapped chemical species, said stability being such that after administration to an animal the chemical species is carried to its destination by the liposome vesicle before significant leakage occurs.

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52. (Amended) A method of preparing a stable liposome vesicle-entrapped chemical species, which method comprises:

(a) forming liposomes in:

- (1) an aqueous medium containing an acid which is substantially impermeable through the vesicle to give an acidic liposome-containing aqueous medium in which the acid is present in the internal and external liposome phases; or
- (2) an aqueous medium containing a base which is substantially impermeable through the vesicle to give a basic liposome-containing aqueous medium in which the base is present in the internal and external liposome phases;

(b) adding:

- (1) to the thus-obtained acid liposome-containing aqueous medium a permanently charged, chargeable, or pH titratable chemical species which is a cationic chemical species, or
- (2) to the thus-obtained acid liposome-containing aqueous medium a permanently charged, chargeable, or pH titratable chemical species which is an anionic chemical species; and

(c) adding to the external liposome phase:

- (1) a base in an amount effective to create a pH gradient between the external liposome phase and the internal liposome phase to

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thereby induce the cationic chemical species to pass into the liposomes' internal acidic aqueous phase, or an acid in an amount effective to create a pH gradient between the external liposome phase and the internal liposome phase to thereby induce the anionic chemical species to pass into the liposomes' internal basic aqueous phase;

wherein said cationic chemical species or said anionic chemical species is accumulated and entrapped within said liposome to produce a stable liposome vesicle-entrapped chemical species, said stability being such that after administration to an animal the chemical species is carried to its destination by the liposome vesicle before significant leakage occurs.
